

The Claims

1. (Currently Amended) A system ~~for tracking and managing mobile devices in a wireless network~~, comprising:

a plurality of device agents, each device agent being assigned to collect association information from a corresponding set of access points in the wireless network and being operable to collect the association information from the corresponding set of access points by querying the access points in the corresponding set of access points, the association information from an access point comprising information identifying one or more mobile ~~units~~ devices ~~which are currently indicated to be~~ associated with the access point, each of the mobile devices being actually associable with one and only one access point at a time; and

a device manager operable to receive the collected association information from the device agents, the device manager ~~having~~ comprising a conflict resolution engine for resolving conflicting access point associations, the conflicting access point associations ~~being~~ comprising two or more currently indicated associations of one and only one of the one or more mobile ~~units~~ devices with respective two or more access points, the conflict resolution engine resolving the conflicting access point associations by identifying a single one of the two or more access points as being actually associated with ~~supporting~~ the one and only one of the one or more mobile ~~units~~ devices and identifying any others of the two or more access points as being disassociated with the one and only one of the one or more mobile ~~units~~ devices.

2. (Currently Amended) The system of claim 1, wherein:

the association information from the access point ~~also~~ further comprises address information of ~~the~~ mobile ~~units~~ devices ~~which are~~ associated with the access point; and

the conflict resolution engine uses the address information to resolve ~~the~~ conflicting access point associations.

3. (Currently Amended) The system of claim 1, wherein:
the association information from the access point comprises time stamps associated with the association information; and
the conflict resolution engine is operable to use ~~uses~~ the time stamps to resolve the conflicting access point associations.

4. (Cancelled)

5. (Currently Amended) The system of claim 1, wherein the conflict resolution engine is operable to request ~~requests~~ appropriate ones of the device agents to query access points corresponding to the conflicting associations.

6. (Currently Amended) The system of claim 1, wherein the conflict resolution engine is operable to use ~~uses~~ network traffic statistics for a mobile device to resolve whether the device is associated with an access point.

7. (Currently Amended) The system of claim 1, wherein the conflict resolution engine is rule based ~~rule-based~~.

8. (Cancelled)

9. (Currently Amended) The system of claim 1, wherein the device manager is operable to send ~~sends~~ a request to a device agent to trigger the query process of the device agent.

10. (Currently Amended) The system of claim 1, further comprising a topology service ~~adapted~~ operable to provide, through a graphical user interface, a topographical visualization of current associations between the access points and the mobile ~~units~~ devices.

11. (Original) The system of claim 10, wherein the visualization is associated with a subnet.

12. (Currently Amended) The system of claim 1, wherein the association information comprises identification of one or more disassociated ~~units~~ mobile devices.

13. (Currently Amended) The system of claim 1, wherein the association information comprises information describing disassociation of a mobile ~~unit~~ device from an access point.

14. (Currently Amended) A method ~~for tracking and managing mobile devices in a wireless network~~, comprising:

collecting association information from a plurality of access points in ~~the~~ a wireless network by querying ~~the~~ a plurality of access points for the association information, the association information from an access point comprising information identifying one or more mobile ~~units~~ devices ~~which are currently indicated to be associated with the access point, each of the mobile devices being actually associable with one and only one access point at a time;~~

resolving conflicting access point associations through a conflict resolution engine, the conflicting access point associations ~~being~~ comprising two or more indicated current associations of one and only one of the one or more mobile ~~units~~ devices with respective two or more access points; and

resolving the conflicting access point associations by identifying a single one of the two or more access points as being actually properly associated with the one and only one of the one or more mobile ~~units~~ devices and identifying any others of the two or more access points as being disassociated with the one and only one of the one or more mobile ~~units~~ devices.

15. (Currently Amended) The method of claim 14, further comprising using network traffic statistics for a mobile device to resolve whether the mobile device is associated with an access point.

16-18 (Cancelled)

19. (Currently Amended) A method ~~for tracking and managing mobile devices in a wireless network~~, comprising:

discovering one or more ~~wireless~~ mobile devices connected to ~~the~~ a wireless network;
collecting association information from a plurality of access points by querying the plurality of access points for the association information, the association information from an access point comprising information identifying a current association between the access point and an associated one of the one or more ~~wireless~~ mobile devices; and
providing a dynamic topographical visualization of associations between the access points and corresponding associated ~~wireless~~ mobile devices.

20. (Currently Amended) The method of claim 19, further comprising tracking a mobile ~~wireless~~ device connected to the wireless network by using the collected association information.

21. (Original) The method of claim 19, further comprising:
generating mobility information by consolidating the collected association information and resolving any conflicts in the collected information; and
logging the resolved mobility information.

22. (Currently Amended) The method of claim 19, further comprising detecting one or more unauthorized rogue mobile devices connected to the wireless network.

23. (Previously Presented) The method of claim 19, further comprising detecting one or more unauthorized access points.

24. (Currently Amended) The method of claim 19, further comprising detecting one or more disassociated mobile ~~units~~ devices.

25-27 (Cancelled)

28. (Currently Amended) A system ~~for tracking and managing mobile devices in a wireless network~~, comprising:

a plurality of device agents, each device agent being assigned to collect association information from a corresponding set of access points in the wireless network and being operable to collect the association information from the corresponding set of access points by querying the access points in the corresponding set of access points;

a device manager ~~adapted to~~ operable to receive the collected association information from the plurality of device agents, the association information from an access point comprising information identifying a current association between the access point and an associated ~~wireless mobile device~~; and

a topology service ~~adapted to~~ operable to provide a dynamic topographical visualization of access points and corresponding associated ~~wireless mobile~~ devices.

29. (Currently Amended) The system of claim 28, wherein the device manager is operable to assign ~~assigns~~ the access points to the plurality of device agents to balance a workload across the device agents.

30. (Currently Amended) The system of claim 28, wherein the device agent ~~regularly polls~~ is operable to poll regularly the corresponding set of access points to determine changes to associations of the access points.

31. (Currently Amended) The system of claim 28, wherein the device agent ~~queries~~ is operable to query the corresponding set of access points to request association information from the access points.

32. (Currently Amended) The system of claim 28, wherein the device manager is operable to consolidate ~~consolidates~~ the collected information and resolves any conflicts in the collected information.

33. (Currently Amended) The system of claim 28, wherein ~~the association information from the access point is retrieved from~~ an association table maintained by ~~the~~ an access point contains the association information for collection from the access point.

34. (Currently Amended) Software ~~for tracking and managing mobile devices in a wireless network, the software being embodied in a computer-readable medium~~ one or more computer-readable tangible media and when executed by one or more computer systems operable to:

collect association information from a plurality of access points in ~~the~~ a wireless network by querying the plurality of access points for the association information, the association information from an access point comprising information identifying one or more mobile ~~units~~ devices ~~which are~~ currently indicated to be associated with the access point, each of the mobile devices being actually associable with one and only one access point at a time;

resolve conflicting access point associations through a conflict resolution engine, the conflicting access point associations ~~being~~ comprises two or more indicated current associations of one and only one of the one or more mobile ~~units~~ devices with respective two or more access points; and

resolving the conflicting access point associations by identifying a single one of the two or more access points as being actually ~~properly~~ associated with the one and only one of the one or more mobile ~~units~~ devices and identifying any others of the two or more access points as being disassociated with the one and only one of the one or more mobile ~~units~~ devices.

35. (Currently Amended) A computer system ~~for tracking and managing mobile devices in a wireless network~~, comprising:

a program storage device readable by the computer ~~system~~, system and tangibly embodying a program of instructions; and

a processor operable to execute the program of instructions to:

collect association information from a plurality of access points in ~~the a~~ a wireless network by querying the plurality of access points for the association information, the association information from an access point comprising information identifying one or more mobile ~~units~~ devices ~~which are currently indicated to be associated with the access point, each of the mobile devices being actually associable with one and only one access point at a time;~~

resolve conflicting access point associations through a conflict resolution engine, the conflicting access point associations being two or more indicated current associations of one and only one of the one or more mobile ~~units~~ devices with respective two or more access points; and

resolve the conflicting access point associations by identifying a single one of the two or more access points as being actually ~~properly~~ associated with the one and only one of the one or more mobile ~~units~~ devices and identifying any others of the two or more access points as being disassociated with the one and only one of the one or more mobile ~~units~~ devices.

36. (Currently Amended) Software ~~for tracking and managing mobile devices in a wireless network, the software being~~ embodied in a computer readable medium one or more computer-readable tangible media and when executed by one or more computer systems operable to:

discover one or more ~~wireless~~ mobile devices connected to ~~the~~ a wireless network;

collect association information from a plurality of access points by querying the plurality of access points for the association information, the association information from an access point comprising information identifying a current association between the access point and an associated one of the one or more ~~wireless~~ mobile devices; and

provide a dynamic topographical visualization of associations between the access points and corresponding associated ~~wireless~~ mobile devices.

37. (Currently Amended) A computer system ~~for tracking and managing mobile devices in a wireless network,~~ comprising:

a program storage device readable by the computer ~~system,~~ system and tangibly embodying a program of instructions; and

a processor operable to execute the program of instructions to:

discover one or more ~~wireless~~ mobile devices connected to ~~the~~ a wireless network;

collect association information from a plurality of access points by querying the plurality of access points for the association information, the association information from an access point comprising information identifying a current association between the access point and an associated one of the one or more ~~wireless~~ mobile devices; ~~wireless device;~~ and

provide a dynamic topographical visualization of associations between the access points and corresponding associated ~~wireless~~ mobile devices.

38. (Currently Amended) The system of claim 1, wherein the one and only one mobile ~~unit~~ device is one and only one physical mobile ~~unit~~ device.

39. (Currently Amended) The method of claim 14, wherein the one and only one of the one or more mobile ~~units~~ devices is one and only one physical mobile ~~unit~~ device.

40. (Currently Amended) The software of claim 34, wherein the one and only one of the one or more mobile ~~units~~ devices is one and only one physical mobile ~~unit~~ device.

41. (Currently Amended) The computer system of claim 35, wherein the one and only one of the one or more mobile ~~units~~ devices is one and only one physical mobile ~~unit~~ device.

42. (Currently Amended) The method of claim 19, wherein the visualization further includes a projected future view of the associations between the access points and the corresponding associated ~~wireless~~ mobile devices.

43. (Currently Amended) The system of claim 28, wherein the visualization further includes a projected future view of the associations between the access points and the corresponding associated ~~wireless~~ mobile devices.

44. (Currently Amended) The software of claim 36, wherein the visualization further includes a projected future view of the associations between the access points and the corresponding associated ~~wireless~~ mobile devices.

45. (Currently Amended) The computer system of claim 37, wherein the visualization further includes a projected future view of the associations between the access points and the corresponding associated ~~wireless~~ mobile devices.